CHAPTER 7.   GETTING STARTED WITH GUPS

After successfully installing GUPS, there are three ways to retrieve shapefiles when starting a new project:

- Census Web (Recommended. Loads directly into GUPS).
- CD/DVD (i.e., the "Data disc").
- My Computer (If downloaded contents of "Data disc" onto local hard drive).

Note: The next chapter, **Chapter 8. GUPS Menus and Toolbars**, describes the menus, buttons, and toolbars referenced throughout this chapter.

7.1   Accessing the Shapefiles for 2020 Census PSAP

Regardless of the product preference selected during the invitation phase, the shapefiles necessary to conduct PSAP are available directly within the GUPS application. By choosing the "Census Web" option when selecting the geography initially in GUPS, participants with internet connectivity can load files as needed, or load multiple county files at once.

Note: The "Census Web" option is the recommended method for accessing the shapefiles for use in 2020 Census PSAP. Use of this option ensures the proper placement of the required files for the application to access.

Participants that do not have internet connectivity, or those that have slow, unreliable internet connectivity, can load the shapefiles directly into GUPS from the "Data disc" or from a location on their computer where they saved the "Data disc" contents. Instructions on how to load shapefiles are contained in **Table 8**.

The GUPS application unzips the files and places them into a pre-established folder created on the computer's home directory during the installation process (e.g., H:\GUPSGIS\gupsdata\...). It then displays them in the application. GUPS manages the files for the participant. No further action is necessary. Because of this GUPS functionality, participants must not make any changes to the shapefile or folder names. The files and folders must have the exact names as provided on the "Data disc" for GUPS to recognize and load them.

IMPORTANT: Census Bureau testing of the GUPS used for PSAP has shown that large counties may take from 15 – 35 minutes for GUPS to create and build the PSAP project. Please be patient while GUPS gathers all of the necessary files and calculates the population and housing unit information.
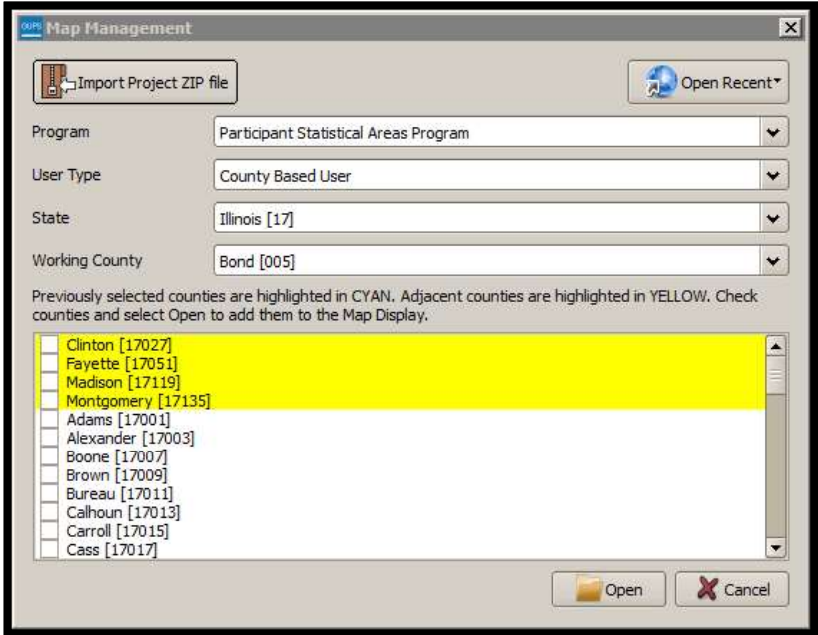
7.2   Open GUPS and Start a New Project

To open GUPS and begin the PSAP review, follow the steps in **Table 8** below. Before beginning, GUPS needs at least 3.3 gigabytes of free space on the hard drive to begin.
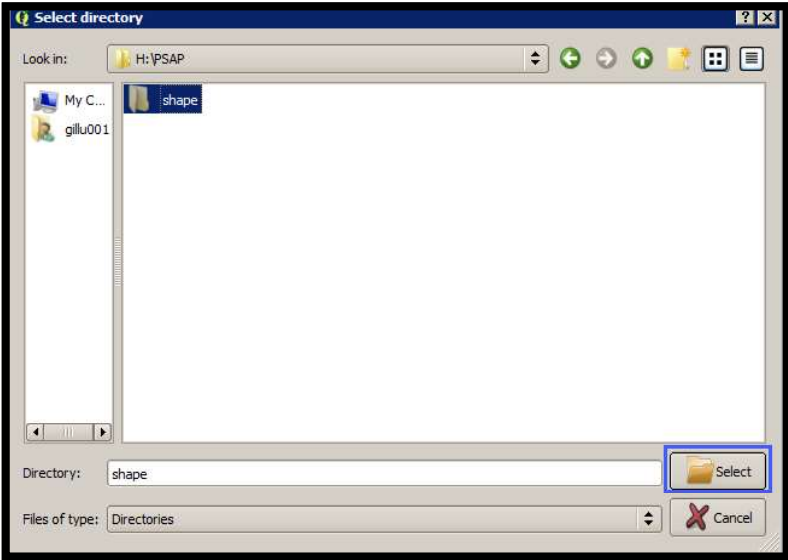
- To practice using GUPS without committing the changes, simply exit the system without saving. Before the system closes, it will provide the option to discard the changes.

- If comfortable with the GUPS, but completion of review and changes are not possible in one session, simply save the changes and close the system. Participants can reopen saved projects and continue working open GUPS later.

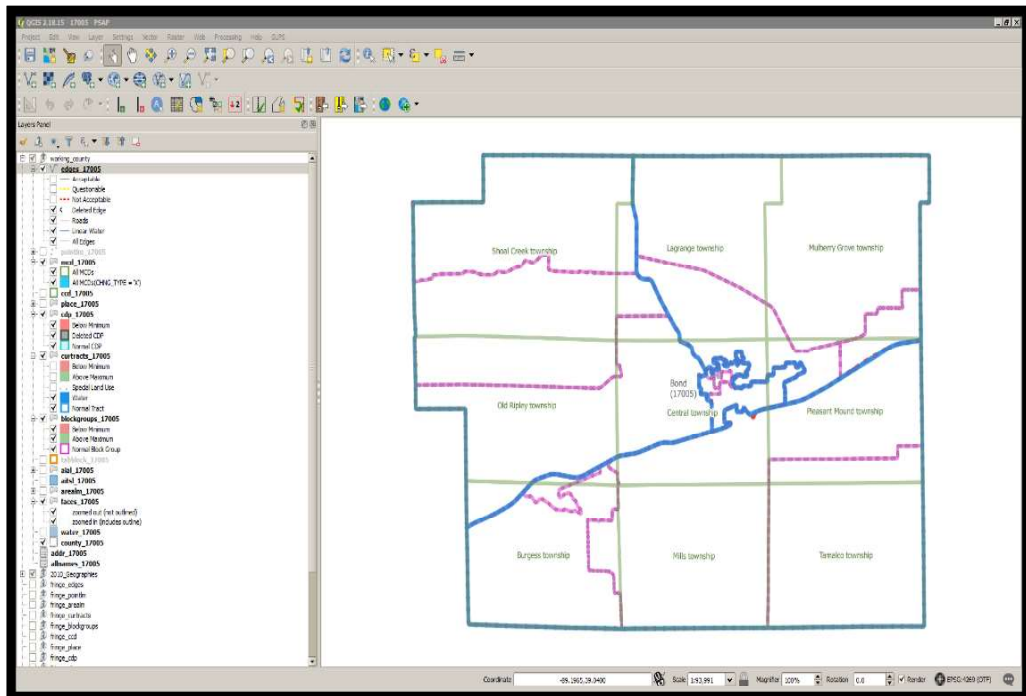**Table 8: Open GUPS and Start a New Project**

Step	Action and *Result*
Step 1	Double click the **QGIS** icon on the desktop or navigate to QGIS from the Start Menu, All Programs choice and select the **QQIS Desktop 2.18.15.** *The QGIS splash screen appears.*
Step 2	Wait until the application loads (An older computer may require a few minutes). When the GUPS application has successfully loaded, *the main page opens, and the* **QGIS Tips!** *window appears.* Since QGIS provided the open-source platform for building GUPS, participants may see references to QGIS in several locations within the GUPS application.
	To view QGIS system tips, click the **Next** button to read the first tip. Use the **Previous** and **Next** buttons to navigate within tips. To skip the tips, click the checkbox in the bottom left-hand corner that states, "***I've had enough tips, don't show this on start up any more!***"

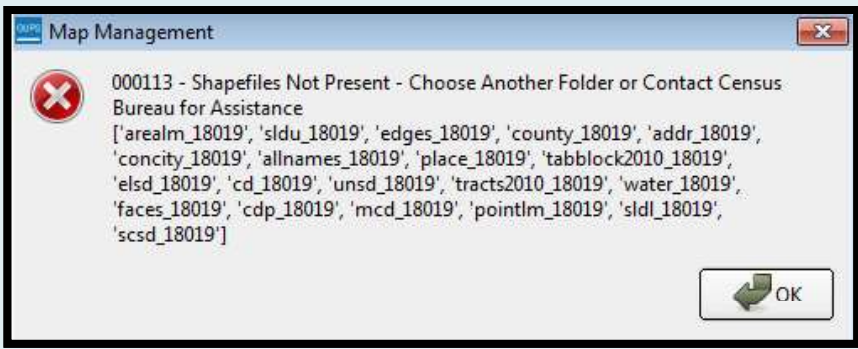| Step	Action and *Result*
Step 3	To begin a GUPS project, close the **QGIS Tips!** window by clicking the **OK** button. *The tip box closes and the* **Map Management** *dialog box opens*, as shown below. • Choose **Participant Statistical Areas Program** from the **Program** menu. • Choose **County Based User** from the **User Type** menu. • Choose the state of the Working County from the **State** menu. • Choose the county to update from the **Working County** menu. At this point, the participant has not selected how to open these files, so *the window populates with all of the counties within the state.* The highlighted counties are the counties adjacent to the working county. **Note:** Only participants opening data using **Census Web** can load adjacent county into the **Map View** along with the working county. This adjacent county functionality will not work for participants using the "Data disc" DVD. They do not have access to the universe of counties for the entire state. Participants can only update the working county. It is not required to display the adjacent counties, but sometimes helpful in reviewing legal boundaries and CDP boundaries of those that cross county boundaries. For this review, participants do not need to load the adjacent counties and doing so likely causes GUPS performance to decrease. Click the **Open** button.

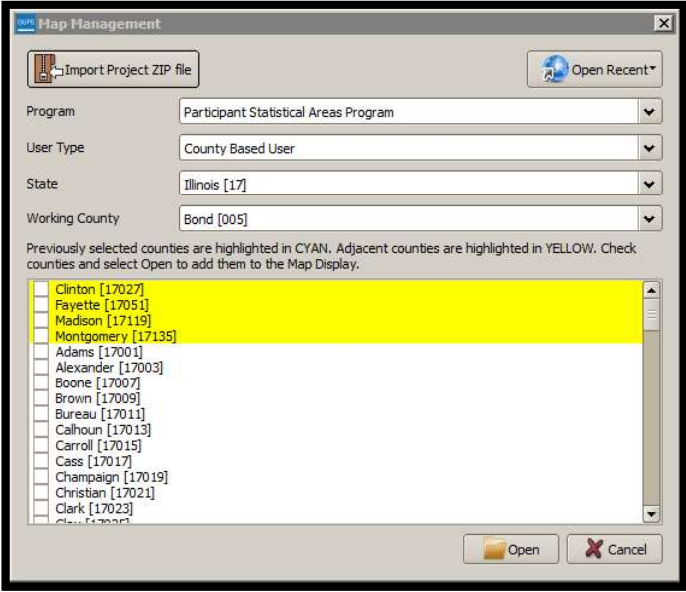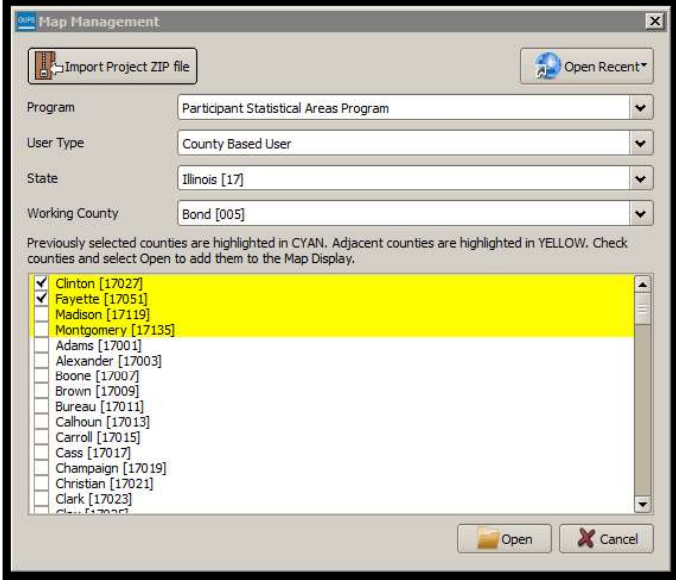| Step	Action and *Result*
Step 4	After selecting the working county or adjacent counties, GUPS asks to specify the location from which to pull the county's (or county equivalent's) shapefile. *The **Select Data Folder, Directory or Location** dialog box opens.* In the **Select Data Folder**, **Directory or Location** dialog box drop-down menu, select the location to pull the working county file. This example assumes the participant is pulling the data from the **CD/DVD** in the drop-down menu. To download data directly into GUPS from the Census Bureau, choose **Census Web** (recommended) or directly from the local hard drive, choose **My Computer** (least recommended option).
	GUPS only asks to specify a location of the data the **first time** a participant opens a county's shapefile. When returning to work on the same county, the shapefile automatically loads, even if there were no changes in the first session.
Step 5	From the **Select directory** window, navigate to the location of the CD/DVD and then click the **shape** folder to populate the **Directory** field. Then click **Select**. **IMPORTANT:** Participants must select the shape folder and not specific files within the folder.

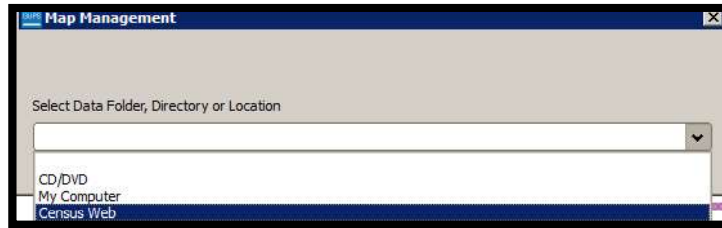| Step	Action and *Result*
Step 6	GUPS downloads all the shapefiles necessary for PSAP off the DVD and opens the requested working county project. GUPS displays a **Map Management** window that shows the progress of building the working county project and calculates the population and housing units. Progress displays by a blue status bar with the percentage of download completed shown to the right of the status bar. Please be patient. Based on the size of the working county, it might take some time to download the data and appear on the screen. Once downloaded, *the working county appears in the **Map View** and layers are visible within the **Table of Contents***.
	If the shapefiles are missing from the directory location chosen in the **Select Data Folder, Directory or Location** window drop-down menu, or the files are corrupted and cannot be loaded, *the following error message appears.* Close GUPS and start the process again.

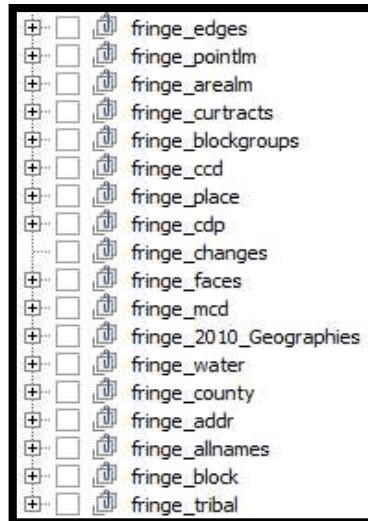| Step	Action and *Result*
Step 7	As mentioned in **Step 3** of this table, participants using the **Census Web** option can add the adjacent counties of the working county by clicking the **Map Management** button in the **Standard toolbar**. *The Map Management window displays the working county selected from the previous steps. Adjacent counties highlight in yellow in the **Map Management** window.* Click the boxes to the left of the highlighted counties list to select adjacent counties to download. *All counties with a checkmark will download and display in the **Map View**.* Unchecking a county excludes that county from the project. **Note:** Loading adjacent counties likely slows GUPS performance.

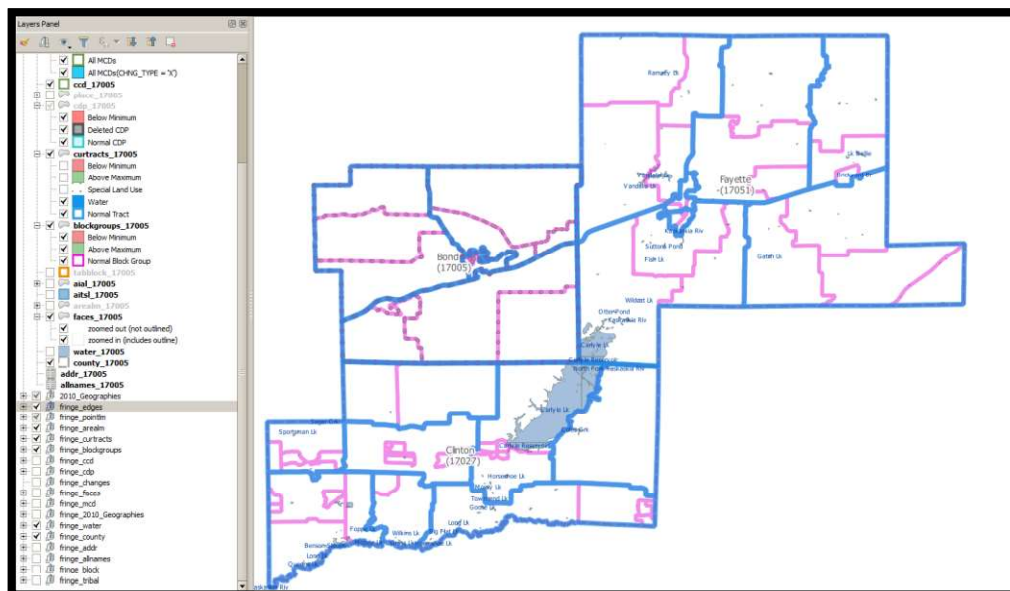| Step	Action and *Result*
Step 8	Click **Open**. From the subsequent **Map Management** window, choose **Census Web**. *GUPS downloads all the selected adjacent counties layers and places them in the **Table of Contents**, labeled as "fringe_."* To view the layers, check the boxes to the left of the fringe layer name to activate and display the chosen layer in the **Map View**. For this example, several fringe layers for the two previously selected adjacent counties (Clinton and Fayette) appear with working county (Bond).